

What Is Claimed Is:

1. A reflective cholesteric liquid crystal (CLC) display device, comprising:
 - a first substrate;
 - an absorption layer on the first substrate;
 - a cholesteric liquid crystal color filter on the absorption layer, the cholesteric liquid crystal color filter having a plurality of protrusions;
 - an overcoat layer on the cholesteric liquid crystal (CLC) color filter;
 - a first electrode on the overcoat layer;
 - a second substrate;
 - a second electrode beneath the second substrate;
 - a retardation layer on the second substrate;
 - a polarizer on the retardation layer; and
 - a liquid crystal layer between the first electrode and the second electrode.
2. The device according to claim 1, wherein a shape, a size and a distribution of the protrusions are controlled to make a distribution of reflected light be uniform within a viewing angle range of about 30 degrees upward and downward from a front direction.
3. The device according to claim 1, wherein a shape, a size and a distribution of the protrusions are controlled to make a distribution of reflected light be decreased gradually within about 20% of the luminance of a front direction.
4. The device according to claim 1, wherein the reflective cholesteric liquid crystal

display device further includes a thin film transistor, which switches a signal to the second electrode, on the second substrate.

5. The device according to claim 1, wherein the reflective cholesteric liquid crystal (CLC) display device further includes a thin film transistor, which switches a signal to the first electrode, on the first substrate.

6. A manufacturing method of a lower substrate for a reflective cholesteric liquid crystal (CLC) display device, comprising:

forming an absorption layer on an insulating substrate;

forming a cholesteric liquid crystal color filter over the absorption layer, the cholesteric liquid crystal color filter having a plurality of protrusions;

forming an overcoat layer on the cholesteric liquid crystal color filter; and

forming a transparent electrode on the overcoat layer.

7. The method according to claim 5, wherein the plurality of protrusions of the cholesteric liquid crystal color filter is formed through exposing and developing a photoresist film.

8. The device according to claim 1, wherein the protrusions have a rounded surface.

9. A liquid crystal display device, comprising:

a first substrate;

a second substrate;

an absorption layer on the first substrate;

a cholesteric liquid crystal layer having a plurality of protrusions on the absorption

layer; and

a liquid crystal interposed between the first and second substrates..

10. A method of forming a reflective liquid crystal display device having a cholesteric liquid crystal color filter, comprising:

forming an absorption layer on a first substrate;

forming a first alignment layer on the absorption layer;

coating a cholesteric liquid crystal on the alignment layer;

forming a photoresist layer on the cholesteric liquid crystal layer;

providing a mask having a plurality of transmissive portions and a plurality of

blocking portions over the photoresist;

exposing the photoresist to light;

removing selected portions of the photoresist;

patterning the cholesteric liquid crystal layer using the photoresist as a mask to form a plurality of protrusions on the cholesteric liquid crystal layer;

providing an overcoat layer over the protrusions and the cholesteric liquid crystal layer to form a substantially even surface;

providing a second substrate opposite the first substrate; and

interposing a liquid crystal between the first and second substrates.

11. The method of claim 10, wherein the photoresist is a negative photoresist.

12. The method of claim 10, wherein the photoresist is a positive photoresist.

13. The method of claim 10, further comprising forming a first electrode on the overcoat layer.

14. The method of claim 10, further comprising forming a second alignment layer on the second substrate.

15. The method of claim 10, further comprising forming a second electrode on the second substrate.